

## REMARKS

Claims 1-5, 8-10, 12-28 are currently pending in the application and Examiner has objected to all currently pending claims. A Petition for Revival of an Application for Patent Abandoned Unintentionally has been filed.

Examiner has rejected Claims 1-5, 8-10, and 12-28 under 35 U.S.C 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention. Examiner believes the claims are vague, indefinite and incomplete, particularly in failing to adequately structurally recite all of the requisite components and their interrelationships, necessary and critical to the successful operation of applicant's invention.

Applicant has modified Claim 1 to denote that the powdered fissile metal hydride is itself exposed to an atmosphere comprising hydrogen. Claims 2-5, 9-10, 12-17, 20, and 22-24 have all been canceled. It is submitted that claims 1, 8, 18, 19, 21, and 25-28 as amended meet the requirements of 35 U.S.C 112, 2<sup>nd</sup> paragraph..

The Specification and Figure 1 have been revised to denote a "means for controlling said non-fissile material temperature".

Examiner has rejected Claims 1-5, 8-10, 12, 15-28 under 35 U.S.C. 102(b) as being clearly anticipated by Magladry (U.S. Patent No. 3,793,144). Applicant respectfully traverses those rejections, noting that claims 2-5, 9-10, 12, 15-17, 20, and 22-24 are now canceled, thereby removing claims for thermal insulation, trays, and coolant. The remaining claims, as currently amended, are directed to a core consisting essentially of "a powdered fissile metal hydride", whereas Magladry specifically teaches a core comprising "porous uranium-zirconium hydride" [Col. 2, line 39, and "uranium-zirconium alloy" [Col.4, line 9]. Note that one skilled in the art at the time of Magladry used zirconium as a structural material (cladding), whereas applicant's present invention is designed to operate without cladding material surrounding the powdered fissile metal hydride.

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Examiner has rejected Claims 1, 8, 9, 12, 18-21, and 25-28 under 35 U.S.C. 102(b) as being clearly anticipated by Haake et al. (U.S. Patent No. 3,296,083). Examiner notes that Haake et al. teaches fuel elements (within cladding) where the core is exposed to steam that of course includes hydrogen (a BWR). Examiner also notes that the zirconium cladding of the fuel rods in Haake et al. may be considered a "non-fissile material". Applicant respectfully traverses based on the now amended Claim 1. Claim 1 now specifically denotes that it is the powdered fissile metal hydride that is in contact with the hydrogen atmosphere, and that the non-fissile material is separated from the core.

Examiner has rejected Claims 1, 8-10, 12, 15-20, 22-28 under 35 U.S.C. 102(b) as being clearly anticipated by Magladry (U.S. Patent 3,627,633), specifically denoting Magladry teaches zirconium hydride (non-fissile material), a metal hydride reservoir, and a reflector. Applicant respectfully traverses, and again points out that applicants amended claim 1 is drawn to "a powdered fissile metal hydride" and that the non-fissile material is separated from the core. Magladry teaches a core that is not powdered and that includes zirconium hydride. Applicant's claims to a reflector and heat pipes have been canceled.

Examiner has rejected claims 2-5 under 35 U.S.C. 103(a) as being unpatentable over Magladry in view of any of Magladry, Casey or McGuire. As stated earlier, Applicant has canceled claims 2-5.

Examiner has rejected Claims 1, 8-10, 12-20, 22, and 25-28 under 35 U.S.C. 102(b) as being clearly anticipated by Marwick (U.S. Patent 4,344,913). Applicants respectfully traverse. Applicant has amended Claim 1 to "a powdered fissile metal hydride" where the non-fissile material is separated from the core. The core taught in Marwick is not a powdered fissile metal hydride and the non-fissile material is not separate from the core. Applicant's claims to gas ports and a reflector have been canceled.

Examiner has rejected Claim 21 under 35 U.S.C. 103(a) as being unpatentable over Magladry, and further in view of Culver, Breze or Kolflat. Applicant respectfully traverses. As Claim 1 in the amended form is now considered allowable, dependent Claim 21 is now allowable as well.

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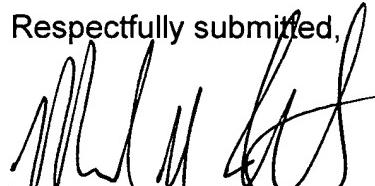
Examiner has rejected Claims 10-14 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Applicant has canceled or withdrawn Claims 10-14.

Therefore, as Applicant now contends that Claim 1 as amended is now allowable, the Examiner is requested to allow Claims 1, 8, 11, 18, 19, 21, 25-29, and to pass this case to issue.

Applicant's attorney would be pleased to further discuss this matter by telephone with the Examiner if the Examiner concludes such a discussion would assist in moving this case to issue. No new matter has been added as a result of this response.

Date: December 7, 2005

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Respectfully submitted,  
  
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Signature of Attorney

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